Julien Dominski

List of Publications by Year
in descending order

33 papers	488 citations	759233 12 h-index	713466 21 g-index
33 all docs	33 docs citations	33 times ranked	701 citing authors

#	Article	IF	Citations
1	The Exascale Framework for High Fidelity coupled Simulations (EFFIS): Enabling whole device modeling in fusion science. International Journal of High Performance Computing Applications, 2022, 36, 106-128.	3.7	11
2	Toward the core-edge coupling of delta-f and total-f gyrokinetic models. Physics of Plasmas, 2022, 29, 032301.	1.9	1
3	First coupled GENE–XGC microturbulence simulations. Physics of Plasmas, 2021, 28, 012303.	1.9	9
4	Spatial coupling of gyrokinetic simulations, a generalized scheme based on first-principles. Physics of Plasmas, 2021, 28, .	1.9	12
5	Transition of a network of nonlinear interactions into a regime of strong nonlinear fluctuations: A paradigm for the edge localized mode onset. Physics of Plasmas, 2021, 28, .	1.9	4
6	Orb5: A global electromagnetic gyrokinetic code using the PIC approach in toroidal geometry. Computer Physics Communications, 2020, 251, 107072.	7.5	66
7	How eigenmode self-interaction affects zonal flows and convergence of tokamak core turbulence with toroidal system size. Journal of Plasma Physics, 2020, 86, .	2.1	13
8	Nonlinear global gyrokinetic delta-f turbulence simulations in a quasi-axisymmetric stellarator. Physics of Plasmas, 2020, 27, .	1.9	12
9	Identification of a network of nonlinear interactions as a mechanism triggering the onset of edge localized modes. Plasma Physics and Controlled Fusion, 2020, 62, 095011.	2.1	6
10	Spatial core-edge coupling of the particle-in-cell gyrokinetic codes GEM and XGC. Physics of Plasmas, 2020, 27, 122510.	1.9	10
11	Study of up–down poloidal density asymmetry of high- impurities with the new impurity version of XGCa. Journal of Plasma Physics, 2019, 85, .	2.1	10
12	Verification of the global gyrokinetic stellarator code XGC-S for linear ion temperature gradient driven modes. Physics of Plasmas, 2019, 26, .	1.9	15
13	Tokamak parameter regimes with low toroidal momentum diffusivity. Journal of Plasma Physics, 2019, 85, .	2.1	1
14	Scalable Performance Awareness for In Situ Scientific Applications. , 2019, , .		0
15	A Co-Design Study Of Fusion Whole Device Modeling Using Code Coupling. , 2019, , .		2
16	Cross-verification of neoclassical transport solutions from XGCa against NEO. Physics of Plasmas, 2019, 26, .	1.9	7
17	ContourNet: Salient Local Contour Identification for Blob Detection in Plasma Fusion Simulation Data. Lecture Notes in Computer Science, 2019, , 289-301.	1.3	0
18	Investigating the radial structure of axisymmetric fluctuations in the TCV tokamak with local and global gyrokinetic GENE simulations. Plasma Physics and Controlled Fusion, 2018, 60, 034003.	2.1	14

#	Article	IF	Citations
19	Identifying microturbulence regimes in a TCV discharge making use of physical constraints on particle and heat fluxes. Physics of Plasmas, 2018, 25, .	1.9	15
20	Coupling Exascale Multiphysics Applications: Methods and Lessons Learned. , 2018, , .		20
21	In Situ Analysis and Visualization of Fusion Simulations: Lessons Learned. Lecture Notes in Computer Science, 2018, , 230-242.	1.3	2
22	Direct Observation of Nonlinear Coupling between Pedestal Modes Leading to the Onset of Edge Localized Modes. Physical Review Letters, 2018, 121, 235001.	7.8	28
23	Gyroaveraging operations using adaptive matrix operators. Physics of Plasmas, 2018, 25, .	1.9	7
24	A tight-coupling scheme sharing minimum information across a spatial interface between gyrokinetic turbulence codes. Physics of Plasmas, 2018, 25, 072308.	1.9	17
25	Cross-verification of the global gyrokinetic codes GENE and XGC. Physics of Plasmas, 2018, 25, 062308.	1.9	26
26	An arbitrary wavelength solver for global gyrokinetic simulations. Application to the study of fine radial structures on microturbulence due to non-adiabatic passing electron dynamics. Physics of Plasmas, 2017, 24, .	1.9	23
27	Pedestal and edge electrostatic turbulence characteristics from an XGC1 gyrokinetic simulation. Plasma Physics and Controlled Fusion, 2017, 59, 105014.	2.1	28
28	Padé approximation of the adiabatic electron contribution to the gyrokinetic quasi-neutrality equation in the ORB5 code. Journal of Physics: Conference Series, 2016, 775, 012006.	0.4	9
29	How non-adiabatic passing electron layers of linear microinstabilities affect turbulent transport. Physics of Plasmas, 2015, 22, .	1.9	31
30	Complete multi-field characterization of the geodesic acoustic mode in the TCV tokamak. Plasma Physics and Controlled Fusion, 2014, 56, 072001.	2.1	65
31	Turbulence and zonal flow structures in the core and L-mode pedestal of tokamak plasmas. Journal of Physics: Conference Series, 2014, 561, 012022.	0.4	5
32	Identifying the role of non-adiabatic passing electrons in ITG/TEM microturbulence by comparing fully kinetic and hybrid electron simulations. Journal of Physics: Conference Series, 2012, 401, 012006.	0.4	10
33	Potential of a plasma bound between two biased walls. Physics of Plasmas, 2012, 19, .	1.9	9